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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,491	04/27/2006	Hiroshi Onda	4255-32	6778
23117 7590 10/15/2007 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			EXAMINER GRAINGER, QUANA MASHELL	
			ART UNIT 2852	PAPER NUMBER
			MAIL DATE 10/15/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/577,491	Applicant(s) ONDA ET AL.	
	Examiner Quana M. Grainger	Art Unit 2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 2 is/are allowed.
- 6) ☒ Claim(s) 3-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4-27-2006, 12-12-2006</u> . | 6) <input type="checkbox"/> Other: ____.  |

Art Unit: 2852

## **DETAILED ACTION**

### ***Drawings***

1. The content of the drawings are approved to by the examiner.

### ***Information Disclosure Statement***

2. The information disclosure statement/s (IDS) submitted on 4-27-2006 and 12-12-2006 was considered by the examiner.

### ***Title***

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Claim Objections***

4. Claims 4-7 are objected to because of the following informalities. Claim 4 recite "proviso" and it is unclear why this term is included in the claim. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2852

6. Claims 3-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Tosaka et al. (7,250,240).

Tosaka et al. teaches a development method in which, while stirring a developer which is a mixture of a magnetic carrier and a toner and supplying the toner of the developer, a toner density TD (%) of the developer is measured, and the toner is supplied to the developer, depending on a reduction in the measured toner density TD (%), wherein the toner is supplied to the developer so that the measured toner density TD (%) falls within a range specified by:  $TD \leq [5.1(D_{cav\_vol})^{-1.17}] \times 100$ ; where a volume average diameter of the magnetic carrier is represented by  $D_{cav\_vol}$  micron), and a volume average diameter of the toner is 5.5 micron (column 9, lines 36-49; column 11, lines 7-50; column 20, line 58 – column 26, line 59).

The development method in which, while stirring a developer which is a mixture of a magnetic carrier and a toner and supplying the toner of the developer, a toner density TD (%) of the developer is measured, and the toner is supplied to the developer, depending on a reduction in the measured toner density TD (%), wherein the toner is supplied to the developer so that the measured toner density TD (%) falls within a range specified by:  $TD \leq (D_{tav\_vol})^{1.2} [5.1(D_{cav\_vol})^{-1.17}/5.5^{1.2}] \times 100$ ; where a volume average diameter of the magnetic carrier is represented by  $D_{cav\_vol}$  (micron), and a volume average diameter of the toner is represented by  $D_{tav\_vol}$  (micron), and with a proviso that the volume average diameter of the toner  $D_{tav\_vol}$  (micron) is in the vicinity of 5.5 (micron). The toner is a toner produced by a pulverizing method. The toner has a pigment concentration of 5 (%) or more (column 1, lines 26-42). The toner has a diameter distribution with a standard deviation of 15 (%) or more.

Art Unit: 2852

***Prior Art***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ito et al., Sato et al., Ninomiya et al., Kawanishi et al., and Shoji et al. teach pertinent prior art that discuss weight average diameter for toner and carrier and/or specific gravity for toner and carrier.

***Allowable Subject Matter***

8. Claims 1-2 are allowed.

***Contact Information***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quana M. Grainger whose telephone number is 571-272-2135. The examiner can normally be reached on 8am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on 571-272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2852

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Quana M Grainger  
Primary Examiner  
Art Unit 2852

QG